

# Patient Transportation Safety

LCDR Molly Madson, REHS, MPH

Redding District Environmental Health Officer

California Area Indian Health Service

# Role of Injury Prevention

## Mission

*Raise the health status of American Indians and Alaska Natives to the highest possible level by decreasing the incidence of severe injuries and death to the lowest possible level and increasing the ability of tribes to address their injury problems.*

[Video on Disparities](#)

# Addressing the disparities

- Have you heard community members talk about missing appointments because they didn't have a way to get there?
- What are some of those transportation barriers?

# Simple but essential

- Transportation is a very basic concept
- Can often be a huge barrier to receiving necessary healthcare
  - Rescheduling
  - Missed appointments
  - Delayed care
  - Delayed use of medications
- Long-term
  - Poor management of illness
  - Poor health outcomes

# Barriers

- Patients not using a personal or private vehicle are more likely to delay care
- 25% of patients without a personal vehicle have missed appointments
- AI/AN more likely to delay care because of transportation
  - 39% reported transportation problems vs 18% whites in same pop set
- 200 children with history of missed appointments were studied
  - 51% of their parents identified transportation as the primary reason
  - Not having a car and not having access to a car
- Better medication access is related to fewer transportation barriers

```
graph TD; A[Patients cannot make appointments] --> B[Missed opportunity for evaluation and treatment]; B --> C[Delay in intervention and prevention]; C --> D[Chronic illness develops or worsens]; D --> E[Complications from illness occur]; E --> A;
```

Patients cannot make appointments

Missed opportunity for evaluation and treatment

Delay in intervention and prevention

Chronic illness develops or worsens

Complications from illness occur

# Other studies on preventive care

- There are many studies that discuss the importance of transportation in relation to receiving the proper healthcare services
- Cancer screening, including colorectal and mammography screening were particularly noted in AI/AN communities
- Some recommendations include discussing transportation during the visit as part of routine care



# What does transportation look like?





# CHR role and transportation

## Indian Health Manual Part 3, Ch.16

- All CHR services shall be community-based.
- If transportation is to be provided, it shall be within the local community to/from an IHS or tribal hospital or clinic for routine, non-emergency problems, to a patient without other means of transportation when necessary. A tribally developed transportation policy shall be in place.

- Transport is the transportation of a patient, without other means of transport, to/from an IHS or tribal hospital/clinic when necessary for routine, non-emergency problems, which includes waiting for a patient, such as a dental patient, to finish treatment.

- Knowledge Base:

- State Traffic Laws
- Vehicle Maintenance/Safety
- Road System

- Range of Skills:

- Driving
- Work Scheduling
- Patient Transfer Techniques
- Minor Vehicle Repair i.e., tire changing, etc..
- Communication/Radio

- Communication:

- Driver's License Defensive
- Driving/Traffic Safety
- Vehicle Insurance as Required



# Motor Vehicle Transport

- Vehicles available
- Safety and reliability
  - Tires
  - Maintenance
  - Chains/variable weather
  - First Aid/Emergency kits
  - Emergency phones
- Tribal transportation policy
  - What does this look like for you?
  - What is included?
  - Enforcement



# Other modes of transport

- Sidewalks or paths for safe walking
- Crosswalks
- Bike lanes
- Safe and secure place for bikes when not in use
- Well-lit streets
- Animal control



# Who are we transporting?

- Community members
- Children
- Elderly
- People with disabilities
- Yourself

**Everyone in the vehicle should be kept safe.**

# Elders

- 1 in 7 adults do not wear a seat belt on every trip
- Access to vehicle and facilities
- Storing/stabilizing oxygen tanks
- Other equipment



# Elders



Oxygen Mask

It is important to make sure you are able to care for others

# Elders

- Be aware of you environment
- What's going on in the house?
- Back Safety
- Take care of yourself

Caregiver Safety



# Back Safety

- Manual lifting, moving, and repositioning is the greatest risk factor for overexertion injuries in healthcare workers
- Nursing home workers had rates of overexertion injuries 3x higher than that of people working in other industries
- Ergonomics and safe patient handling
- “When is it safe to manually lift a patient?”
- [Calculations?](#)

# Elders

- Transferring patients to or from a vehicle may be a necessary component of the job
- What are some tips/tricks you all use?
- Do you use lifts or transfer boards?

[Transfer  
Skills Video](#)

# Children

- AI/AN children have the highest fatal and nonfatal injury rates among all races
- Motor vehicle crashes are the leading cause of unintentional injury-related death
- Car seats reduce death by 71% for infants and 54% for toddlers



# People with disabilities

- Access to vehicle and facilities
- Proper motor vehicle restraints
- Extra assistance and time
- Service animals
- Additional medications



# Yourself

- Seat belt
- Remove distractions
  - Eating
  - Drinking
  - Cell Phone
  - Radio
- Infection control issues
  - Accidents, vomit, blood, other
- Knowledge of routes
- Knowledge of laws



# Seatbelt laws

- California has a primary seat belt law

**Primary** vs. **Secondary**

# California car seat laws

- Children under 2 years of age shall ride in a rear-facing car seat unless the child weighs 40 or more pounds OR is 40 or more inches tall. The child shall be secured in a manner that complies with the height and weight limits specified by the manufacturer of the car seat. (California Vehicle Code Section 27360.)
- Children under the age of 8 must be secured in a car seat or booster seat in the back seat.
- Children who are 8 years of age OR have reached 4'9" in height may be secured by a booster seat, but at a minimum must be secured by a safety belt. (California Vehicle Code Section 27363.)
- Passengers who are 16 years of age and over are subject to California's Mandatory Seat Belt law.

# Is everyone using car seats?

[Car Seat Video](#)

- Are they installed properly?
- Is the child in the right seat?
- Is the seat still good?



# Car seat recommendations

- Child Passenger Safety Technicians [Website](#)
  - How many of you are certified techs?
  - How many of you work with one?
- Safe Native American Passengers (SNAP) [Website](#)
  - Culturally appropriate 1-day intro course on child passenger safety
- CHP [Videos](#)
- Local County Health Departments [Shasta County](#)

# Obtaining seats

- You are trained, but don't have any seats...
- CA Area Indian Health Service Mini-Grant Program
- TIPCAP Funding
- BIA Highway Safety Grants
- Local and Tribal Programs

# Data

- How do you know if your car seat program is working?
- Observational surveys
  - Seat belt use
  - Car seat use
- Other data
  - Focus groups
    - Are there changes that should be made to the Transportation program?
  - Interviews
  - Surveys
  - What else?

# Conclusion

- Community Health Representatives help to address one of the primary barriers in receiving health care by providing transportation to appointments and treatment
- It should be ensured that this transportation is provided in the safest way possible, for all passengers
- It should be a priority to make all methods of transportation safe too



# References:

- California Highway Patrol. (2018). Child Safety Seats. Retrieved from: <https://www.chp.ca.gov/programs-services/programs/child-safety-seats>
- Centers for Disease Control and Prevention. (2017). Motor Vehicle Safety. Tribal Road Safety: Get the Facts. Retrieved from: <https://www.cdc.gov/motorvehiclesafety/native/factsheet.html>
- Centers for Disease Control and Prevention. (2011). Vital Signs. Adult Seat Belt Use. Retrieved from: <https://www.cdc.gov/vitalsigns/seatbeltuse/index.html>
- Centers for Disease Control and Prevention. (2018). The National Institute for Occupational Safety and Health. Safe Patient Handling and Mobility. Retrieved from: <https://www.cdc.gov/niosh/topics/safepatient/default.html>
- Daley, C.M., Filippi, M.K., James, A.S., Weir, M., Braiuca, S.L., Kaur, B., Choi, W.S., & Greiner, K. (2011). American Indian Community Leader and Provider Views of Needs and Barriers to Mammography. *Journal of Community Health, 37*, 307-315.
- Nelson, A., Lloyd, J., Menzel, N., & Gross, C. (2003). Preventing nursing back injuries: redesigning patient handling tasks. *AAOHN Journal, 51*(3), 126-134
- Syed, S.T., Gerber, B.S. & Sharp, L.K. *J Community Health* (2013) 38: 976. <https://doi-org.ezproxy.uis.edu/10.1007/s10900-013-9681-1>
- YouTube. (2017). ALF get Oxygen Mask on Airplane Safety Video. Retrieved from: <https://www.youtube.com/watch?v=93DsGFUUv7Y>
- YouTube. (2010). Native American Healthcare Statistics Video. Retrieved from: <https://www.youtube.com/watch?v=y6t93XdtAXE>
- YouTube. (2011). Family Caregiver Alliance. Ch.1: Transfer Skills (Caregiver College Video Series). Retrieved from: <https://www.youtube.com/watch?v=oB0uPoulcXo>
- YouTube. (2016). Question Everything, Child Passenger Safety. Ad Council Video. Retrieved from: <https://www.youtube.com/watch?v=gnFXI14OJIA>
- YouTube. (2014). Safety Memos. Caregiver Safety – The 5 Basics – Safety Training Video. Retrieved from: [https://www.youtube.com/watch?v=iHHE5XX\\_vE](https://www.youtube.com/watch?v=iHHE5XX_vE)
- Zullig, L. L., Jackson, G. L., Provenzale, D., Griffin, J. M., Phelan, S., & van Ryn, M. (2012). Transportation – A Vehicle or Roadblock to Cancer Care for VA Colorectal Cancer Patients? *Clinical Colorectal Cancer, 11*(1), 60–65. <http://doi.org/10.1016/j.clcc.2011.05.001>

# Contact Information

LCDR Molly Madson, REHS, MPH  
Redding District Environmental Health Officer  
California Area Indian Health Service

Office: 530-246-5339

Cell: 530-215-5755

Email: [molly.madson@ihs.gov](mailto:molly.madson@ihs.gov)